

I. BACKGROUND

On February 2, 1996, the Kentucky Division for Air Quality concluded that the application from Huish Detergents Inc., for the initial operating permit for a detergent manufacturing plant, was complete.

This source would be classified as a major source based on the uncontrolled potential of PM/PM10 exceeding 100 TPY. However, federally enforceable conditions are included in the permit to limit the material usage rates and production rates. Thus, by limiting the above, and having the requirement to operate and maintain the air pollution control equipment, the PM/PM10 emissions are limited to below 100 TPY. The allowables for PM/PM10 are set below the major source threshold value of 100 TPY. The regulation 401 KAR 59:015, New indirect heat exchangers, specified the allowables of SO₂ for the boilers, which exceeds 100 TPY. The uncontrolled emission from the two indirect heat exchangers is 0.053 TPY. The potential to emit is the lower of the two. To preclude the application of Regulation 401 KAR 50:035, Permits, for Title V provisions, allowable emissions for SO₂ are limited to be less than 100 TPY. Since these requirements are not enforceable by the U.S.EPA through the State Implementation Plan (SIP), the permit conditions must become federally enforceable pursuant to Regulation 401 KAR 50:035, Permits, Section 5. Upon the issuance of the permit, the permit restrictions will become federally enforceable.

Public notice was placed in **THE DAILY NEWS** in Bowling Green, Kentucky, on April 4, 1996. During the 30-day comment period, two letters (Appendix A) were received by the division. One letter was received from Ms. Jewell A. Harper, Chief of Air Enforcement Branch for Air, Pesticides and Toxics Management Division on April 26, 1996. The other letter was received on April 29, 1996 from Huish Detergents inc. No comments were received from the public or affected states.

II. DISCUSSION OF COMMENTS

Letter 1 (Letter from EPA):

Comment 1:

As drafted, the conditional major permit does not restrict potential emissions below major source thresholds. For example, point of emission 01 allows the permittee to emit up to 121.8 tpy of SO₂. This by itself, exceeds the 100 tpy Title V thresholds. In order for the permittee to be limited out of major source permitting, the source's overall allowable emissions must be restricted below 100 tpy.

Response:

Based on EPA telecourse “Determining major source applicability under Title V and Section 112”, potential to emit is the lesser of the allowables and uncontrolled emissions. In the case of gas fired units (Emission points 01, 02), potential to emit should be based on uncontrolled emissions. The potential to emit from the two boilers thus is 0.053 TPY. However, the allowables for SO₂ are reduced to below 100 TPY. The direct heat exchanger (emission point 03 in the preliminary) is moved to emission point 37 as it is vented through a wet scrubber.

Comment 2:

The draft permit must also limit overall emissions of PM-10 below major source thresholds. Since potential emissions of PM-10 are being limited through the operation of various air pollution control devices, the permit should state the allowable emission limits after controls. For process/operation lines (i.e., spray drying) vented to a common control device, we recommend consolidation of individual PM emission limits along the process line into a single practicably enforceable limit (i.e., one PM limit for spray drying process line after controls). Furthermore, since the facility will be limited out of major source permitting primarily through the operation of air pollution control devices, the permit should specify that the capture system and control device must be operated at all times the process line is in operation. The condition should clearly state that the control equipment shall be installed, calibrated, operated, and maintained according to the vendor’s specifications at all times the control devices are in use. In order to demonstrate ongoing compliance, the condition should require the permittee to maintain a record of operational parameters for each control device (i.e., opacity, pressure drop, flow rate, etc.). In addition, a log detailing all routine and non-routine maintenance performed on each control device should also be required.

Response

The overall emissions of PM/PM₁₀ are limited to be below major source thresholds. The allowable emission rates initially were set as specified by Regulation 401 KAR 59:010, as the allowable emissions after controls were very small. The permit now has the allowables after the controls. All the process/operation lines with a common control device { Emission point 36 (Dust collector 6), Emission point 44 (Dust collector 7), Emission point 37 (Wet Scrubber)} are consolidated with one emission limit. Regarding the suggestion about the control devices, the General Condition 24 (as in draft permit) addresses that. The General Condition 24 is moved and added to General Condition 5. However, “calibrated” and “according to vendor’s specifications” is added to it. The General Condition 5 has been modified to address the issue of compliance demonstration. General Condition 11 has also been changed regarding the same.

Comment 3

In an effort to reduce the source's burden to report annually to the Cabinet and Environmental Protection Agency, you may change General Condition 24 to read, "The permittee shall certify compliance to the Cabinet, and if requested, to the U.S. EPA, annually or as otherwise."

Response

The general condition is incorrectly numbered in the comment, as 24 instead of 23. The change has been made in General Condition 23.

Comment 4

Although General Condition 11 requires the permittee to maintain records sufficient to assure compliance with the permit, we recommend that General Condition 25 require the permittee to maintain a working log of process throughput in gallons per month and year. Similarly, General Condition 26 should require the permittee to maintain a working log of the process throughput in tons per month and year. Reports generated from the logs could then be used to demonstrate compliance with the specified annual maximum production rates.

Response

The changes have been made.

Comment 5

General Condition 28 should be revised to indicate that the permit has been conditioned to restrict potential emissions of regulated air pollutants below 100 tpy.

Response

The change has been made.

Letter 2 (Letter from the company)

Change number	Page on permit	Condition to be changed or added	Comments
(1)	4 of 19	Change Soda Ash 90 to Soda Ash 100	Change throughout Permit
(2)	4&5 of 19	Omit processing rate of lb/hr, leave in TPY	Do not keep hourly records
(3)	7 of 19	Omit emissions from Booster Mixer	Product is in slurry form in Booster Mixer
(4)	8 of 19	Omit Off Quality Mixer	Never installed
(5)	13 of 19	Change (4) Clyborne Packaging Machines to Five (5) Packaging Machines	We have one bucket line and four clybornes
(6)	13 of 19	Change total processing rate of packaging Machines from 13,333 lb/hr and 58,240TPY to 75,000 lb/hr and 328, 500 TPY	If Low Suds (40,000) & High suds (35,400) max. rates are obtained, total will be 75,000 lb/hr.
(7)	13 of 19	Omit DFE Model P3 coating Machine	Do not have at facility
(8)	18 of 19	#26 of General Conditions, production rate 38,756.3 lb/hr should be omitted	Do not keep hourly production records

Response:

- (1) The change has been made.
- (2) Refer to General Condition 5(c).
- (3) The change has been made.
- (4) The change has been made.
- (5) The change has been made.
- (6) The change has been made.

- (7) The change has been made.
- (8) Refer to modified General Condition 25 (previously 26).

III. CONCLUSION AND RECOMMENDATION

The Division has concluded its review of the application and comments received and determined that the proposed source can comply with all applicable air quality requirements. Compliance with the terms of the permit will ensure compliance with all applicable air quality requirements. Therefore, it is the recommendation of the permit writer that the permit be issued as conditioned.